

REMARKS

These remarks are in response to the office action mailed June 28, 2006. Applicant would like to thank the Examiner for his courteous assistance in the telephone interview of July 25, 2006. During this interview, the Examiner indicated that he expected that the application would be in condition for allowance if claim 63 were to be amended to conform to the amendments made to claim 15 in the previous amendment.

Allowable Subject Matter

The Office Action states that claims 15-62 and 65-66 are allowed. Claim 63 has now been amended to incorporate language similar to that added to claim 15 and other independent claims in the previous office action, and applicant submits that this application should therefore be in condition for allowance.

More specifically, the invention, as now presented in amended claim 63, relates to a computer system for playing motion video that includes computing apparatus operative in response to signals from a set of three keys located right next to each other on one horizontal row in a standard alphanumeric keyboard to control shuttling of playback of video information. A first of the keys is for forward shuttling, a second is for pausing, and a third is for reverse shuttling.

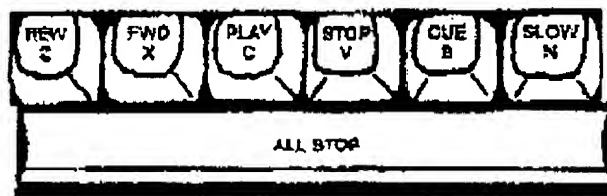
The second key is right between the first and third keys. A first actuation of the first key in a paused condition causes a change in forward shuttle speed from the paused condition to a first forward shuttle speed. A second actuation of the first key, after the first actuation of the first key and while images are presented at the first forward shuttle speed, causes a change in forward shuttle speed from the first forward shuttle speed to a second forward shuttle speed that is faster than the first forward shuttle speed.

Conversely, a first actuation of the third key in the paused condition causes a change in reverse shuttle speed from the paused condition to a first reverse shuttle speed. A second actuation of the third key, after the first actuation of the third key and while images are presented at the first reverse shuttle speed, causes a change in reverse shuttle speed from the first reverse shuttle speed to a second reverse shuttle speed that is faster than the first reverse

shuttle speed. After any of the actuations of the first and third keys, a first actuation of the second key causes the video material to be paused.

As discussed extensively in prior remarks, this aspect of the invention can allow a user to efficiently and intuitively shuttle backwards and forwards through material at different speeds to find an edit point using only a few keystrokes of three fingers of one hand. For example, a user could begin shuttling through a large video file by pressing the forward shuttle key three times to quickly shuttle toward a desired edit point at triple speed. If the user then passes the edit point, he or she can begin reverse shuttling in a single keystroke to achieve a single-speed reverse shuttling and then presses the central pause key to pause at the edit point with another keystroke. This shuttling interface therefore allows a user to reach an edit point efficiently and intuitively while leaving one hand free to perform other operations.

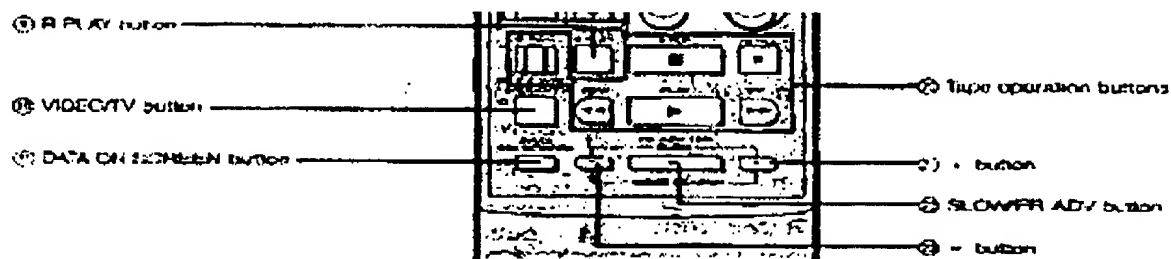
Claim 63 stands rejected as obvious over Anderson in view of a Mitsubishi VCR owner's manual. Anderson discloses a keyboard for a computer editing system that he characterizes as representative of top-of-the-line video edition systems. It includes a series of the following six keys: REW, FWD, PLAY, STOP, CUE, SLOW (p. 69, col. 1):



Anderson also states that some systems feature a "jog" function. Activating "jog" and pushing either the "advance" or "retard" control is said to jog the playback VTR one frame per button push, with the edit point entry number changing accordingly. The arrangement of such keys is not illustrated or described.

The Mitsubishi owner's manual describes the operation of a hand-held remote control for a VCR. Because it includes channel buttons and does not include any editing functions, it appears that this remote control is intended for use with a consumer-grade VCR.

of the type that can be used to record and play back off-the-air television programs. It includes a SLOW/FR ADV button (22) surrounded by a "-" (23) button and a "+" button (24):



Pressing the SLOW/FR ADV button while in playback mode causes the VCR to begin slow-motion playback, and pressing it in pause mode causes the VCR to advance one frame at a time. Pressing the "+" button in slow-motion mode increases slow-motion speed, and pressing the "-" button in slow-motion mode decreases slow motion speed.

The Office Action states that Anderson discloses three adjacent keys with a first being for forward shuttling, a second being for pausing, and a third being for reverse shuttling, but acknowledges that Anderson does not explicitly disclose the claimed actuation steps. The Office Action goes on to argue that the "-", SLOW/FR ADV, and "+" keys shown in the Mitsubishi owner manual teach the steps.

But Anderson does not show three keys located right next to each other on one horizontal row in his alphanumeric keyboard, including a first one for forward shuttling, a second one for pausing, and a third one for reverse shuttling, with the second key being right between the first and third, as now required by amended claim 63. Anderson's first figure on page 69 (reproduced above) instead shows the following sequence of keys: REW, FWD, PLAY, STOP, CUE, SLOW. This order does not satisfy the claim language as now amended, because it does not disclose forward shuttling, pausing, and reverse shuttling keys right next to each other on a horizontal keyboard row with the second key being between the first and third ones. Anderson instead only shows a keyboard with REV and FWD keys, and fails to disclose a pause key between them. And Anderson says nothing about where one would find the jog, advance, and retard keys.

Anderson's REV and FWD keys also do not operate in the manner now claimed in amended claim 63. Claim 63 now requires that a second actuation of the first key, after a first actuation and while images are presented at a first forward shuttle speed, causes a change in forward shuttle speed from the first forward shuttle speed to a second forward shuttle speed that is faster than the first forward shuttle speed. But nowhere does Anderson indicate that his FWD key should respond to multiple actuations at all. Similarly, Anderson does not disclose anywhere that a second actuation of his REV key should cause a change in reverse speed.

Anderson's advance and retard keys also do not operate in the manner now claimed in amended claim 63. These keys are jog controls that advance playback one frame per button push. A second actuation of the Anderson advance key while images are presented at a first shuttle speed therefore does not cause images to be presented at a faster shuttle speed. Instead, a second actuation of the Anderson advance key simply causes the system to present a later still image. And a second actuation of Anderson's retard key does not cause images to be presented at a faster reverse shuttle speed, but simply causes the system to present an earlier still image.

Careful analysis therefore indicates that the Anderson document does not disclose either the key arrangement or functionality as now claimed in amended claim 63. Neither the REV and FWD key set illustrated on p. 69, or the unshown jog, advance, and retard key set constitute three keys located right next to each other on one horizontal row in an alphanumeric keyboard, including a first one for forward shuttling, a second one for pausing, and a third one for reverse shuttling, with the second key being right between the first and third, as now required by amended claim 63. Nor does Anderson indicate that a second actuation of a first key while images are presented at a first forward shuttle speed causes a change to a faster forward shuttle speed as now required by amended claim 63. Moreover Anderson does not indicate that a second actuation of a third key while images are presented at a first reverse shuttle speed causes a change to a faster reverse shuttle speed as now required by amended claim 63.

The Mitsubishi manual also fails to disclose the invention as now presented in amended claim 63. Claim 63 requires three keys located right next to each other on one

horizontal row in his alphanumeric keyboard, with a first one being for forward shuttling, a second one being for pausing, and a third one being for reverse shuttling. But the Mitsubishi manual does not disclose keys in an alphanumeric keyboard at all; it presents buttons in a remote control. And the central SLOW/FR ADV button does not act as a pause button. It instead causes the VCR to begin slow motion playback when it is in playback mode, and it causes the VCR to advance one frame at a time when it is in pause mode. The Mitsubishi manual therefore fails to disclose alphanumeric keyboard keys or their arrangement as now claimed in amended claim 63.

The Mitsubishi buttons also do not operate in the manner now claimed in amended claim 63 in slow mode. Claim 63 now requires that a second actuation of a third key, after a first actuation and while images are presented at a first reverse shuttle speed, causes a change in reverse shuttle speed from a first reverse shuttle speed to a second reverse shuttle speed that is faster than the first reverse shuttle speed. But nowhere does the Mitsubishi manual indicate that pressing the "-" button increases reverse shuttle speed. It instead decreases slow motion speed in slow motion mode. In this mode, therefore, the Mitsubishi manual does not disclose pausing or speeding up reverse shuttling at all. This is quite different from the operation of the system as now claimed in amended claim 63.

The Office Action asserts that "Mitsubishi does teach both slow motion playback speed." After careful review of the Mitsubishi manual, however, applicant has not found any indication that reverse playback can be achieved in any other way than through the "REPLAY" button (9). And this button is not part of a set of three keys located right next to each other on one horizontal row, with a first one being for forward shuttling, a second one being for pausing, and a third one being for reverse shuttling, as now required in amended claim 63.

The Mitsubishi buttons also do not operate in the manner now claimed in amended claim 63 in playback mode. In this mode, the "-" and "+" buttons initiate forward and reverse index searches. But nowhere is there any disclosure that a second actuation of either button will change playback speed. And pressing the "SLOW/FR ADV" key in playback mode does not pause the VCR, but instead takes the VCR out of playback mode and begins

slow motion playback. This is again quite different from the operation of the system as now claimed in amended claim 63.

Careful analysis therefore indicates that the Mitsubishi document does not disclose either the key arrangement or functionality as now claimed in amended claim 63. In neither mode do the "-", SLOW/FR ADV, and "+" constitute three keys located right next to each other on one horizontal row in his alphanumeric keyboard, with a first one being for forward shuttling, a second one being for pausing, and a third one being for reverse shuttling, as now required by amended claim 63. Nor do they indicate that a second actuation of a third key while images are presented at a first reverse shuttle speed causes a change to a faster reverse shuttle speed as now required by amended claim 63.

And because neither document shows a pause key located between forward and reverse shuttling keys with multiple actuations of the shuttling keys operating to change shuttling speeds as now claimed in amended claim 63, it is not clear how one would combine the two references in such a way as to obtain the invention. Since Mitsubishi's group of three keys does not operate as claimed, simply inserting this group into the Anderson keyboard would not operate as claimed either. One would therefore have to instead selectively mix and match various functions from selected modes in the two references to even come close to the claimed invention. But there is no teaching in any of the prior art of record that would motivate one of ordinary skill to even consider such a complex undertaking.

In fact, one of ordinary skill in the art also would not have been motivated to modify the Anderson's keyboard to use the Mitsubishi keys at all. Anderson's keyboard is for a professional editing system with advanced editing functions, while Mitsubishi's remote control is for a consumer-grade VCR for recording television shows. There is no reason apparent from any of the prior art of record that one of ordinary skill in the art would have reason to believe that an improvement would be obtained if he were to modify Anderson's professional editing system to include Mitsubishi's keys. And Anderson's characterizations of his keyboard as representative of top-of-the line editing systems would further dissuade one of ordinary skill from seeking alternative approaches to shuttle key arrangements. For

these reasons, one of ordinary skill in the art would not have been motivated to combine the Anderson and Mitsubishi teachings.

The only other claim remaining under rejection, claim 64, is dependent on claim 63, and should be allowable for at least the reason that it depends on an allowable claim. This application should therefore now be in condition for allowance and such action is respectfully requested. The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0750.

Respectfully submitted,

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Dated

Kristofer E. Elbing
Kristofer E. Elbing

Registration No. 34,590
187 Pelham Island Road
Wayland, MA 01778
Telephone: (508) 358-2590
Facsimile: (508) 358-0714